FOR EXAMINATION PURPOSES

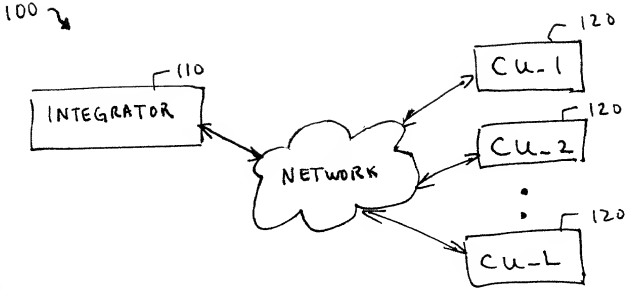

FIG. 1

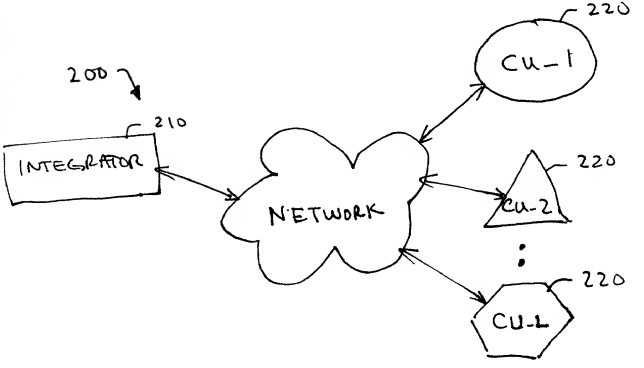

FIG. 2

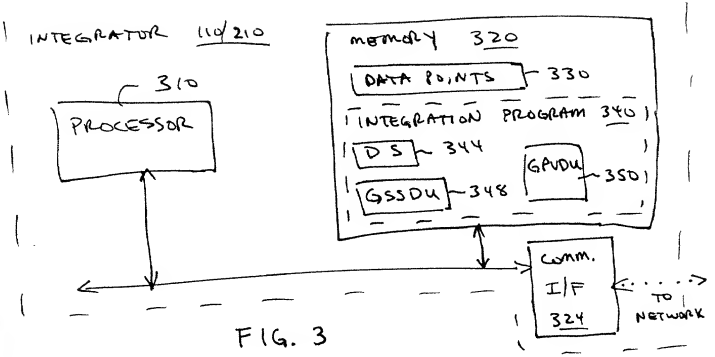
INTEGRATOR 110/210
310
PROCESSOR
MEMORY 320
DATA POINTS 330
INTEGRATION PROGRAM 340
DS 344
GSSDU 348
GPVDU 350
COMM. I/F 324
TO NETWORK

FIG. 3

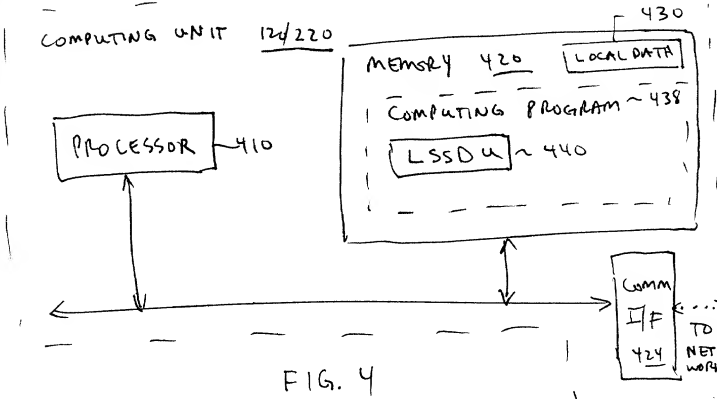
COMPUTING UNIT 120/220
430
MEMORY 420
LOCAL DATA
COMPUTING PROGRAM 438
LSSDU 440
PROCESSOR 410
COMM I/F 424
TO NETWORK

FIG. 4

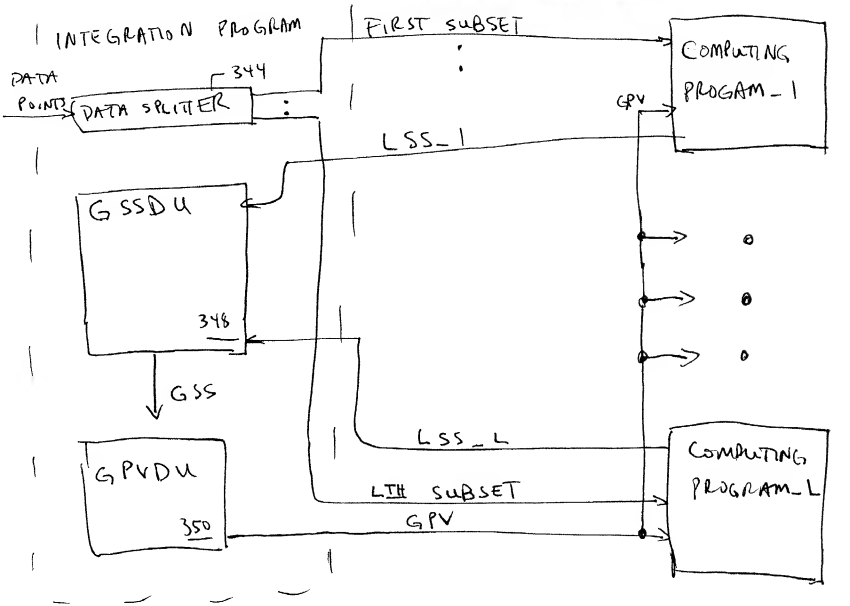
INTEGRATION PROGRAM
DATA POINTS
DATA SPLITTER
344
FIRST SUBSET
COMPUTING PROGAM_1
GPV
LSS_1
GSSDU
348
GSS
LSS_L
COMPUTING PROGRAM_L
GPVDU
350
LTH SUBSET
GPV

FIG. 5

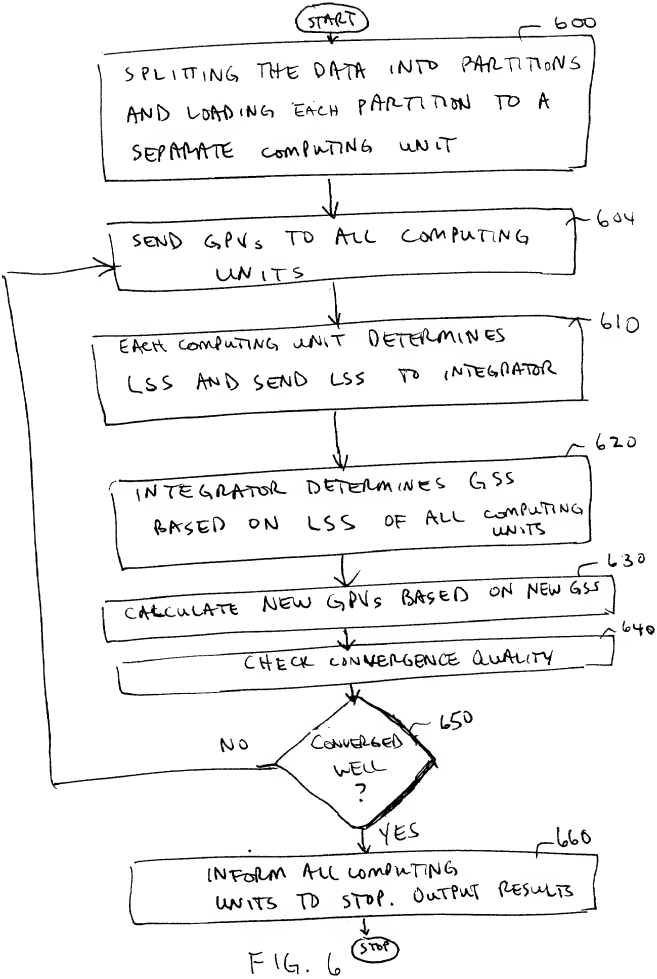
START
600
SPLITTING THE DATA INTO PARTITIONS AND LOADING EACH PARTITION TO A SEPARATE COMPUTING UNIT
604
SEND GPVs TO ALL COMPUTING UNITS
610
EACH COMPUTING UNIT DETERMINES LSS AND SEND LSS TO INTEGRATOR
620
INTEGRATOR DETERMINES GSS BASED ON LSS OF ALL COMPUTING UNITS
630
CALCULATE NEW GPVs BASED ON NEW GSS
640
CHECK CONVERGENCE QUALITY
650
CONVERGED WELL ?
NO
YES
660
INFORM ALL COMPUTING UNITS TO STOP. OUTPUT RESULTS
STOP

FIG. 6

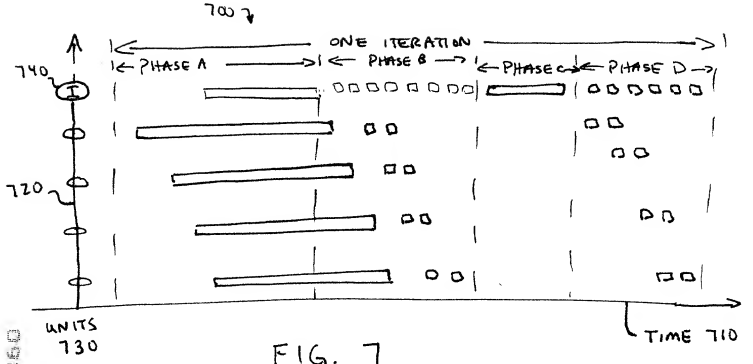
700
ONE ITERATION
PHASE A
PHASE B
PHASE C
PHASE D
740
I
720
UNITS
730
TIME 710

FIG. 7

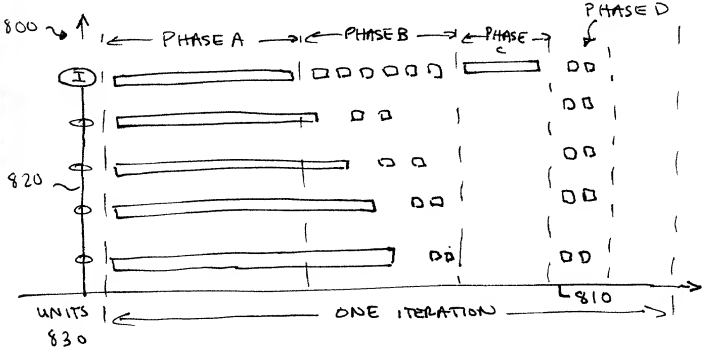
800
PHASE A
PHASE B
PHASE C
PHASE D
I
820
810
UNITS
830
ONE ITERATION

FIG. 8

DATA CLUSTERING SYSTEM 900

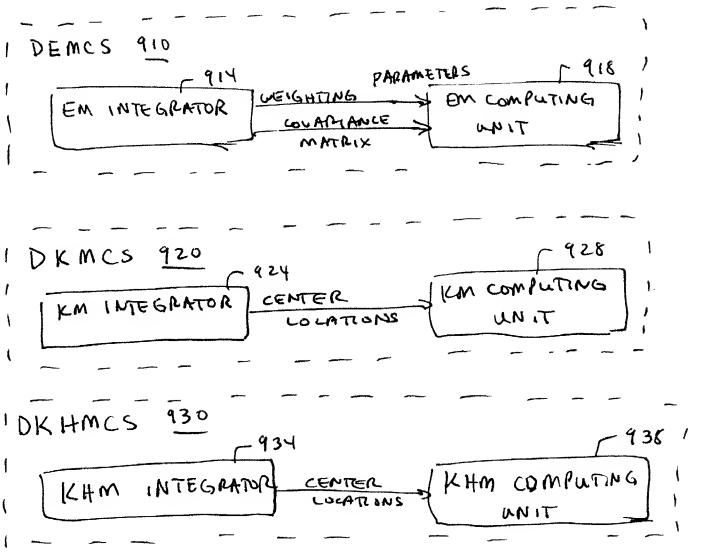

FIG. 9